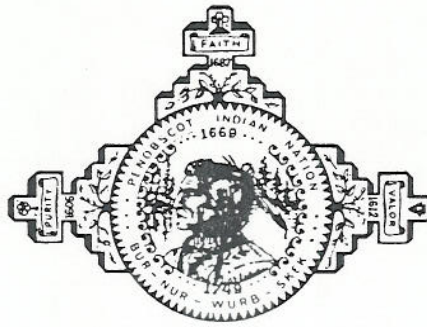


PENOBSCOT NATION
DEPARTMENT OF
NATURAL RESOURCES



6 RIVER ROAD
INDIAN ISLAND
OLD TOWN, ME 04468
TEL: 207/827/7776
FAX: 207/827/6042

February 18, 1993

George Papadopoulos
U.S. Environmental Protection Agency
J.F.K. Federal Building
Boston, MA 02203

Dear Mr. Papadopoulos:

In response to your request for additional information on fish consumption by Penobscot tribal members, I am sending you a detailed summary of a survey conducted in 1991 by the Department of Natural Resources. This survey was developed to determine how tribal members used the river and what concerns they had regarding the river. Included in this survey were questions that dealt specifically with fish consumption. This same information was included in PIN's supplemental comments to the Maine Department of Environmental Protection (Dec 7, 1992) regarding the proposed interim dioxin standard. Julie Belaga and Eric Hall were on the distribution list for this material.

The first portion of this summary is a narrative that explains how the survey was conducted and presents an overview of the results. Also included is a detailed question-by-question breakdown of responses to the survey.

I hope that the results of this survey accentuate the high risk that Penobscot Indians are exposed to from consuming contaminated fish. These data show that some tribal members consume many meals of fish per week and that these meals are relatively large. The study also suggests that many tribal members do not consume fish from the Penobscot River because of the perception that they are contaminated.

I hope that this information is helpful to you. If you have any questions please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "Daniel H. Kusnierz".

Daniel H. Kusnierz
Water Quality Specialist

cc: John Banks, DNR Director

DRAFT

ATTACHMENT

Results of the 1991 Penobscot River Users Survey
Conducted by the Department of Natural Resources

Introduction

One of the original program objectives set forth in the Water Resources project narrative called for the organization of a Penobscot River Council. The purpose of the River Council was to "generate and sustain broad-based public support for river awareness and protection." Ideally, the membership of this council would have been composed of Penobscot tribal members, Penobscot Nation staff, officials from municipalities adjacent to the Penobscot River, State agency personnel, and other interested individuals.

Initially, emphasis was placed on hiring an outside consultant to facilitate the formation of the river council and to organize council activities. The result of this effort was one meeting with several municipal officials, representatives from State agencies, Penobscot Nation personnel, and the interested public in attendance. Although the first meeting was successful, apparently there was no follow-up and the idea was not pursued further.

During the fall of 1989, the Water Resources program moved back to the Department of Natural Resources. It was then decided that the best approach towards initiating a river council or committee would be to begin with the tribal membership first, since the underlying reason for the existence of the Water Resources Program is to improve the river so that all tribal members may once again enjoy it. It was thought that a river council or committee comprised of interested tribal members would be the best way to inform and educate the community about environmental issues impacting the quality of the Penobscot River.

Toward that end, a survey was developed that would be sent to tribal members to determine how individuals felt about the river, which issues were of greatest concern, how often did they actually use the river and in what way (i.e. recreationally), and to find out whether tribal members would be interested in forming some type of river council or committee. In essence, the results of the survey would enable Penobscot Nation staff to determine which river issues were of importance to tribal members and to plan environmental programs accordingly.

A Penobscot River User Survey was sent to all tribal members residing in the State of Maine (over the age of 18), on January 4, 1991. Of the 858 surveys were sent, 210 individuals returned their surveys, 21 were undeliverable due to changes in addresses, which yielded a total response rate of approximately 25 percent.

The results of each survey were coded in such a way that each question was treated as a separate variable, with a total of 91 variables in all. Each survey was given a three digit identifier (001 to 210), and each variable was coded with a number from 00 to 99, depending on the actual response. Basic data summaries and analyses were conducted using the mainframe SAS programming available at the University of Maine at Orono.

Survey Respondent Profile

Of the 210 individuals answering their survey, 52.9 percent were male (111 respondents), 44.8 percent were female (94 respondents), and 5 did not specify (2.4 percent). The greatest majority of respondents were from the 25 to 34 year age bracket (31.7 percent), followed by the 35 to 44 age group (21.0 percent). While 65.2 percent of the respondents were not reservation residents, 29.6 percent of those individuals (non-reservation respondents) reside within a 29 mile radius of Indian Island.

The average respondent was 39.1 years of age, had approximately 12.7 years of education, and an annual income of approximately \$ 21,758. When broken down into male and female groups, females averaged a slightly higher level of education than males (12.7 females, 12.6 males), females answering the survey were younger than males (38 years compared to 40.2 years), but males averaged a higher annual salary (\$ 22,921) than the females (\$ 20,569).

Section A Results

Section A of the survey asked questions concerning general use of the river, such as, actual frequency of use, specific type of use (i.e. fishing, swimming, boating, etc.), and area of use (East Branch, West Branch, Main stem, etc.). In addition, several questions addressed fish consumption issues such as amounts and types of fish consumed, frequency of actual consumption and concerns about fish consumption.

The majority (61.9 percent) of respondents have used the Penobscot River for recreational purposes within the last two years. Of those using the river 53 percent reside away from Indian Island, 44 percent reside on Indian Island, and 3 percent did not specify residency. Those respondents who used the river (130 in all), generally used the river more than 10 times per year (43.2 percent). Those who used the river 1 to 5 times per year account for 37.9 percent of the group and those who used the river 6 to 10 times per year total 15.2 percent.

The type of actual use was varied: canoeing was the most popular activity of the group, 84 individuals participated in this activity; fiddleheading was another popular activity, as 71 used the river for this activity; 61 individuals used the river for

fishing activities; 50 individuals used the river for hunting; and 39 used the river for swimming. For a complete listing of activity preferences, please refer to Appendix A, Section A.

Of the responding tribal members who did not use the river in any way (37.1 percent), 30 percent did not do so because they have no time to use the river. Other reasons for not using the river included: lack of interest (22.5 percent); concerns about pollution (16.3 percent); long distance from home to the river (12.5 percent); and a lack of adequate public access (8.8 percent).

When asked whether they would use the river in the future, 43.8 percent indicated that they would do so if they had more time. Other respondents indicated that they would use the river more if it was cleaner (18.8 percent), if they lived closer to the river (8.8 percent), or if there was more public access (6.3 percent).

The main stem of the Penobscot River is the most used section of the river by 80.3 percent of the survey respondents who use the river. West Branch users total 7.6 percent and those using the East Branch account for 3.0 percent.

When asked whether they ate fish from the Penobscot River, 72.9 percent (153 individuals) responded that they did not and a majority of respondents also indicated that they had concerns about eating fish from the river (66.7 percent).

Concerns about eating fish were generally attributed to pollutional issues: 50.7 percent cited pollution problems in general; 10.3 percent toxins and carcinogens; 9.6 percent indicated dioxin; 4.8 percent said the fish are not safe; and 2.7 percent indicated that an active consumption advisory was the reason they did not consume fish from the river. It should be noted that the respondents were asked to write in their own reason for not eating fish, rather than being provided with a list of possible concerns. For a complete listing of all responses please see Appendix A, Section A.

Of the 23.8 percent of respondents actually consuming fish from the river, 47.2 percent indicated that they consumed less than one fish per month, during the fishing season. For the majority of those eating fish from the river, the size of the fish meal was between 4 and 8 ounces (30.2 percent).

The most commonly consumed fish species from the Penobscot River were smallmouth bass, brook trout, Atlantic salmon, pickerel, perch, and landlocked salmon.

A question concerning sustenance fishing for Atlantic salmon was also asked in Section A, but because of a printing error, only 69 individuals actually answered this question. However, of those

69 respondents, 89.9 percent indicated that they would like to fish for Atlantic salmon on a sustenance level, if more were available. Although not all tribal members answered this question, the results (of those that did respond) show that there is a great deal of interest in sustenance fishing for Atlantic salmon.

Section B Results

In Section B of the survey, tribal members were asked how they felt about certain environmental issues, relative to the quality of the Penobscot River. Possible responses to each issue statement were Strongly Agree, Agree, Undecided, Disagree or Strongly Disagree. The results of these questions were broken down further into sub-groups of Reservation residents and non-reservation residents, and male and female, to determine whether there was any variation between the responses of the groups. For example, one might assume that because reservation residents are surrounded by the Penobscot River, there might be more of an interest in or awareness of river issues, which might possibly be evident in the survey results.

An overwhelming majority of tribal members agreed (95.7 percent) that the Penobscot River is a valuable natural resource. When asked whether they thought the State was doing enough to protect this resource, 71.9 percent disagreed, however 20.5 percent were uncertain as to whether the State was doing enough. Most tribal members agreed (86.2 percent) that the State should do more to protect the Penobscot River. Finally, 83.4 percent of the responding tribal members agreed that the Penobscot Nation would benefit if more was done by the State to protect the river.

When asked whether they thought that the Penobscot Nation was doing enough to protect the river, 45.2 percent of respondents did not agree. Of the 38.6 percent that were undecided, a majority (83.9 percent) were non-reservation residents. The uncertainty of non-reservation residents may be due to the lack of awareness of environmental programs within the department.

More than 74 percent of the respondents agreed that the Penobscot Nation should do more to protect the Penobscot River. A majority of responding tribal members (73.8 percent) also thought that the Penobscot Nation would benefit if more was done by the Penobscot Nation to protect the river.

More than 90 percent of respondents believed that the Penobscot Nation would benefit by working together with State and Federal agencies in order to protect the Penobscot River.

As far as forming some type of river group or committee, approximately 75 percent of the respondents agreed that the formation of such a group would be beneficial. However, a

relatively equal amount of 39 percent were undecided and 38 percent were agreed as to whether they would actually be involved in a river group or committee. Approximately 20 percent responded that they would not be willing to become involved.

Approximately 65 percent of those not willing to be involved were non-reservation residents. The high percentage may be due to the fact that those individuals might have to travel some distance and therefore the idea is not so appealing or just due to the fact that non-reservation residents comprised a greater percentage of the survey respondents.

Also included within Section B were several environmental issue statements, which were asked in order to determine which issues were of greatest concern, relative to the quality of the Penobscot River. Participants were asked whether the issue in question was Very Important, Important, Slightly Important, Not Important, or Unsure.

Generally, most tribal members thought that all of the environmental issues presented in the survey were very important, relative to the quality of the Penobscot River. All of the issues related to the licensed (or unlicensed) discharge of materials into the river (i.e. industrial and municipal effluents or oil spills) were considered very important or important by a greater than 90 percent majority.

When other issues were presented (i.e. hydroelectric, storm run-off, etc.), tribal members were uncertain as to whether they were important to the quality of the Penobscot River. This could be due to the fact that these issues are not well understood or well known by tribal members. In fact, these issues are only now being addressed by state and federal environmental agencies.

Also contained within Section B was an area to check off or write in possible topics for discussion, in the event of a river group or committee meeting. Almost all of the respondents indicated that they were interested in learning more about the issues that were presented (hydroelectric development, impacts from the paper industry, and Atlantic salmon restoration efforts). Possible topics suggested by tribal members included: adverse impacts to wildlife from pollution; pollution clean-up efforts; development of other reservation islands; and water rights issues. It is interesting to note that a few respondents commented that they would like to know more about the departments' water quality program and find out how tribal members can help. For a complete listing of all topics of interest, please refer to Section B, Appendix A.

When asked to rate the overall quality of the Penobscot River, 56.7 percent thought that it could be improved. While 20 percent

thought the river was better than it was before, 8.6 percent were unsure and 8.1 percent thought the river was worse than it was before. One might assume that the Elders would consider the river cleaner now than the way it was before the Clean Water Act was implemented or that younger respondents might consider the river very dirty, however this is not the case. When broken down into age groups of five year spans (i.e. 25 to 30 years of age) the majority of respondents in each age grouping thought the river could be improved.

While it may be true that the river is cleaner than it was twenty years ago, there is still much work to be done. From the results of the survey, it appears that most respondents concur and believe that there are many threats to the quality of the Penobscot River that should be addressed.

The participation of tribal members should be an integral component of pollution clean-up and monitoring efforts. With tribal members informed about issues such current environmental legislation or a pending discharge license application, the Penobscot Nation could have a stronger voice on all matters relative to the quality of the Penobscot River. With many tribal members involved in the effort, the Penobscot River could be transformed back to the majestic river it once was.

SECTION A. In this general section we are interested in learning some general information about your use of the Penobscot River.

1. Have you used the Penobscot River for recreation in the last 5 years? (circle yes or no)

YES Yes (1.0 #)
 NO No (1.0 #)
 2. No response (1.0 #)

Of those using the river:

3. How often do you use the river?
 4. How far do you travel to the river?
 5. How long does it take to get to the river?

Appendix A

6. If you did not use the Penobscot River, why?

Generally:

1. Moved away (1.0 #)
 2. Too old (1.0 #)
 3. Do not like or want (1.0 #)
 4. No transportation (1.0 #)
 5. No money (1.0 #)
 6. Limited access to river (1.0 #)
 7. Live too far away (1.0 #)
 8. The river is too polluted (1.0 #)
 9. Have no interest in river (1.0 #)
 10. Lack of time (1.0 #)

Of males and females:

Males Females

1. Moved away (1.0 #)
 2. Too old (1.0 #)
 3. Do not like or want (1.0 #)
 4. No transportation (1.0 #)
 5. No money (1.0 #)
 6. Limited access to river (1.0 #)
 7. Live too far away (1.0 #)
 8. The river is too polluted (1.0 #)
 9. Have no interest in river (1.0 #)
 10. Lack of time (1.0 #)

1. Unspecified (1.0 #)
 2. Unspecified (1.0 #)

SECTION A. In this general section we are interested in learning some general information about your use of the Penobscot River.

1. Have you used the Penobscot River for recreation in the last 2 years ? (circle yes or no)

130 Yes 61.9 %
78 No 37.1 %
2 No Response 1.0 %

Of those using the river,

70 Reside away from Reservation 53 %
58 Reside on the Reservation 44 %
3 Unspecified Residency 3 %

a. If you did not use the Penobscot River, why ?

Generally,

24	Lack of time	30.0 %
18	Have no interest in river	22.5 %
13	The river is too polluted	16.3 %
10	Live too far away	12.5 %
7	Limited access to river	8.8 %
3	No Response	3.8 %
2	No Transportation	2.5 %
1	Do not fish or boat	1.3 %
1	Too old	1.3 %
1	Moved away	1.3 %

Of Males and Females,

Males

10 No Time (12.5 %)
3 No Interest (3.8 %)
6 Too Polluted (7.5 %)
3 Too Far Away (3.8 %)
2 Limited Access (2.5 %)
1 No Transportation (1.3 %)
1 Do not Fish/Boat (1.3 %)

1 Unspecified No Response (1.3 %)
1 Unspecified Other Reason (1.3 %)

Females

14 No Time (17.5 %)
15 No Interest (18.8 %)
7 Too Polluted (8.8 %)
6 Too Far Away (7.5 %)
5 Limited Access (6.3 %)
2 No Response (2.5 %)
1 No Transportation (1.3 %)
1 Too Old (1.3 %)
1 Moved Away (1.3 %)

Of Reservation residents and non-residents (per year),

On Reservation	Off Reservation
35 More than 10 (26.5 %)	22 More than 10 (16.7 %)
11 1 to 5 (8.3 %)	37 1 to 5 (28.0 %)
11 6 to 10 times (8.3 %)	9 6 to 10 (6.8 %)
2 No response (1.5 %)	2 No response (1.5 %)
2 Unspecified residents 1 to 5 (1.5 %)	
1 Unspecified resident No response (0.8 %)	

Of Males and Females (per year),

Males	Females
38 More than 10 (28.8 %)	17 More than 10 (12.9 %)
32 1 to 5 times (24.2 %)	18 1 to 5 times (13.6 %)
13 6 to 10 times (9.8 %)	6 6 to 10 times (4.5 %)
2 No response (1.5 %)	2 No response (1.5 %)
2 Unspecified respondents More than 10 times (1.5 %)	
1 Unspecified respondent 6 to 10 times (0.8 %)	
1 Unspecified respondent No response (0.8 %)	

3. Next to each recreational activity, please indicate how many times you participated in the last year.

Results reflect total useage. For example, in all 84 individuals canoed in the river (out of a possible 210), of those 53 were male, 28 were female, and three did not indicate their sex.

<u>Activity</u>	<u>Males</u>	<u>Females</u>	<u>No Response</u>	<u>Total Useage</u>
Canoeing	53	28	3	84
Fiddleheading	50	19	2	71
Fishing	43	16	2	61
Hunting	39	8	3	50
Swimming	21	17	1	39
Boating	23	12	0	35
Camping	22	11	0	33
Picnicing	17	12	0	29
Birdwatching	15	8	1	24
Rafting	3	1	0	4
Check Realestate	1	0	0	1
Sit and Watch	1	0	0	1
Snowmobliing	1	0	0	0
Ceremonial Use	1	0	0	0
Joyriding	1	0	0	0

4. Which general segment of the Penobscot River do you use the most ?

106 Use Mainstem, in general	80.3 %
10 Use the West Branch	7.6 %
9 No response	6.8 %
4 Use the East Branch	3.0 %
2 Use East and West Branches and Mainstem	1.5 %
1 Use East and West Branches	0.8 %

5. Do you eat fish caught from the Penobscot River?

153 No	72.9 %
50 Yes	23.8 %
7 No response	3.3 %

6. Do you have any concerns about eating fish from the Penobscot River ?

140 Yes	66.7 %
58 No	27.6 %
12 No response	5.7 %

If yes, please explain concern:

74 Pollution problems	50.7 %
15 Toxins and carcinogens	10.3 %
14 Dioxin	9.6 %
9 No response	6.2 %
7 Fish are not safe	4.8 %
6 Dirty water	4.1 %
6 Fish contain pollutants	4.1 %
5 Wormy fish	3.4 %
4 Consumption Advisory	2.7 %
2 Not sure if water is clean	1.4 %
1 Fish with lesions	0.7 %
1 Heavy Metals	0.7 %
1 Don't eat fish	0.7 %
1 Don't know about river	0.7 %

If you do not eat fish from the Penobscot River, Please go to question # 10.

7. How many fish meals do you eat from the Penobscot River ?

During fishing season ?

Rest of year?

25 Less than 1 per month (47.2 %)	36 Less than 1 per month (66 %)
16 1 to 3 per month (30.2 %)	13 No response (24.5 %)
6 No response (11.3 %)	5 1 to 3 per month (9.4 %)
2 More than 2 per day (3.8 %)	
2 2 to 4 per week (3.8 %)	
2 1 per week (3.8 %)	

8. The size of fish meal usually is:

16 4 to 8 ounces	30.2 %
13 8 to 12 ounces	24.5 %
13 Greater than 12 ounces	24.5 %
7 No response	13.2 %
4 Less than 4 ounces	7.5 %

9. What three types of fish from the Penobscot do you eat most ?
(example: salmon, trout, bass)

Species # 1 Smallmouth bass
Species # 2 Trout
Species # 3 Salmon
Species # 4 Pickerel
Species # 5 Perch
Species # 6 White perch
Species # 7 Landlocked salmon

10. If Atlantic Salmon were more available for sustenance fishing on the reservation, would you fish for them ?

Unfortunately, only 69 answered this question because of an error. However, of those answering the question:

62 Yes	89.9 %
7 No	10.1 %

The following questions concern freshwater fish consumption from all sources, including the Penobscot River.

11. Do any members of your family eat freshwater fish ?
(circle one) Yes No

If you answered no to question # 11, please go to Section B.
If you answered yes, please continue with question # 12.

12. How many individuals in your household eat freshwater fish ?
_____ # of Adults
_____ # of Children

Penobscot Indian Nation
 Penobscot River Fish Consumption by Tribal Members
 Results Based on 1990 Survey Conducted by DNR
 1990 Fishing Season

Open Water Season

number of cases 47

<u>Percentile</u>	<u>Level of Consumption (number of fishmeals)</u>
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50 th	less than one per month
75 th	less than one per month
90 th	one per week
95 th	two to four per week
99 th	one per day

Males

Females

Percentile

50 th	less than one/month	less than one/month
75 th	less than one/month	less than one/month
90 th	two to four per week	one to three per month
95 th	one per day	one per week
99 th	more than one per day	one per week

Average Fishmeal Size

All consumers

Males

Females

Percentile

50 th	224 to 336 grams (g)	224 to 336 g	224 to 336 g
75 th	> 336 g	224 to 336 g	> 336 g
90 th	> 336 g	> 336 g	> 336 g
95 th	> 336 g	> 336 g	> 336 g
99 th	> 336 g	> 336 g	> 336 g

17. For each species of fish (from all sources, including the Penobscot River) that you usually eat, how do you usually prepare the fish? How do you usually serve the fish? (Please write one number in column titled "Served" to indicate the way you usually serve each species of fish consumed in your household)

1= Raw 4= Fried 7= Stew/Chowder
 2= Baked 5= Poached
 3= Broiled/grilled 6= Boiled

Filletted Cooked Do you eat Served?
 before cooking? with skins on? the liver/roe ? Yes or No
 Yes or no Yes or No Yes or No

Example:

	<u>NO</u>	<u>Yes</u>	<u>no / no</u>	<u>2</u>
Trout				
Landlocked Salmon	_____	_____	____/____	_____
Atlantic Salmon	_____	_____	____/____	_____
Smallmouth Bass	_____	_____	____/____	_____
Brook Trout	_____	_____	____/____	_____
Togue (Lake Trout)	_____	_____	____/____	_____
Yellow Perch	_____	_____	____/____	_____
White Perch	_____	_____	____/____	_____
Pickereel	_____	_____	____/____	_____
Hornpout (Catfish or Bullheads)	_____	_____	____/____	_____
Suckers	_____	_____	____/____	_____
Chub	_____	_____	____/____	_____
Smelt	_____	_____	____/____	_____
Eel	_____	_____	____/____	_____
Other (Please describe)	_____	_____	____/____	_____

SECTION B. In this section we would like to get your opinion on several important issues that the Department of Natural Resources is now considering.

a. The Penobscot River is a valuable natural resource.

Generally,

172	Strongly Agree	81.9 %
29	Agree	13.8 %
4	Undecided	1.9 %
3	Disagree	1.4 %
2	No Response	1.0 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
111 Strongly Agree (52.9 %)	59 Strongly Agree (28.1 %)
16 Agree (7.6 %)	12 Agree (5.7 %)
2 Undecided (1.0 %)	2 Undecided (1.0 %)
3 Disagree (1.4 %)	

2 Non-Specified Respondents Strongly Agree	(1.0 %)
1 Non-Specified Respondent Agree	(0.5 %)
2 Non-Specified Respondents No Response	(1.0 %)

Of Males and Females,

Male	Female
103 Strongly Agree (49 %)	67 Strongly Agree (31.9 %)
6 Agree (2.9 %)	22 Agree (10.5 %)
1 Undecided (0.5 %)	3 Undecided (1.4 %)
1 Disagree (0.5 %)	2 Disagree (1.0 %)

2 Unspecified Respondents Strongly Agree	(1.0 %)
1 Unspecified Respondent Agrees	(0.5 %)
2 Unspecified Respondents No Response	(1.0 %)

b. The Maine State government and its agencies are doing enough to protect the Penobscot River.

Generally,

78	Disagree	37.1 %
73	Strongly Disagree	34.8 %
43	Undecided	20.5 %
9	Agree	4.3 %
6	No Response	2.9 %
1	Strongly Agree	0.5 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
50 Disagree (23.8 %)	27 Disagree (12.9 %)
37 Strongly Disagree (17.6 %)	36 Strongly Disagree (17.1 %)
36 Undecided (17.1 %)	6 Undecided (2.9 %)
6 Agree (2.9 %)	2 Agree (1.0 %)
3 No Response (1.4 %)	1 No Response (0.5 %)
	1 Strongly Agree (0.5 %)
1 Unspecified Respondent Disagree (0.5 %)	
1 Unspecified Respondent Undecided (1.0 %)	
1 Unspecified Respondent Agree (0.5 %)	
2 Unspecified Respondent No Response (0.5 %)	

Of Males and Females,

Male	Female
40 Disagree (19.0 %)	38 Disagree (18.1 %)
39 Strongly Disagree (18.6 %)	31 Strongly Disagree (14.8 %)
25 Undecided (11.9 %)	18 Undecided (8.6 %)
6 Agree (2.9 %)	3 Agree (1.4 %)
1 No Response (0.5 %)	3 No Response (1.4 %)
	1 Strongly Agree (0.5 %)
3 Unspecified Respondents Strongly Disagree (1.4 %)	
2 No Response (1.0 %)	

c. The Maine State government should do more to protect the Penobscot River.

Generally,

133 Strongly Agree	63.3 %
48 Agree	22.9 %
19 Undecided	9.0 %
5 No Response	2.4 %
2 Disagree	1.0 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
74 Strongly Agree (35.2 %)	57 Strongly Agree (27.1 %)
34 Agree (16.2 %)	13 Agree (6.2 %)
18 Undecided (8.6 %)	1 Undecided (0.5 %)
3 No Response (1.4 %)	2 Strongly Disagree (1.0 %)
1 Strongly Disagree (0.5 %)	
2 Disagree (1.0 %)	
2 Unspecified Respondents Strongly Agree (1.0 %)	
1 Unspecified Respondent Agree (0.5 %)	
2 Unspecified Respondents No response (1.0 %)	

Of Males and Females,

Males	Females
73 Strongly Agree (34.8 %)	58 Strongly Agree (27.6 %)
25 Agree (11.9 %)	23 Agree (11.0 %)
11 Undecided (5.2 %)	8 Undecided (3.8 %)
2 Strongly Disagree (1.0 %)	3 No Response (1.4 %)
	2 Disagree (1.0 %)
2 Unspecified Respondents Strongly Agree (1.0 %)	
2 Unspecified Respondents No Response (1.0 %)	
1 Unspecified Respondent Strongly Disagree (0.5 %)	

- d. The Penobscot Nation would benefit if more was done by Maine State agencies to protect the Penobscot River.

Generally,

111 Strongly Agree	52.9 %
64 Agree	30.5 %
25 Undecided	11.9 %
4 Disagree	1.9 %
4 No Response	1.9 %
2 Strongly Disagree	1.0 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
62 Strongly Agree (29.5 %)	46 Strongly Agree (21.9 %)
46 Agree (21.9 %)	18 Agree (8.6 %)
20 Undecided (9.5 %)	5 Undecided (2.4 %)
2 Disagree (1.0 %)	2 Disagree (1.0 %)
2 No Response (1.0 %)	2 Strongly Disagree (1.0 %)

3 Unspecified Residents Strongly Agree (1.4 %)
2 Unspecified Residents No response (1.0 %)

Of Males and Females,

Males	Females
68 Strongly Agree (32.4 %)	40 Strongly Agree (19.0 %)
32 Agree (15.2 %)	32 Agree (15.2 %)
9 Undecided (4.3 %)	16 Undecided (7.6 %)
2 Strongly Disagree (1.0 %)	4 Disagree (1.9 %)
	2 No Response (1.0 %)

3 Unspecified Respondents Strongly Disagree (1.4 %)
2 Unspecified Respondents No Response (1.0 %)

- e. The Penobscot Nation is doing enough to protect the Penobscot River.

Generally,

81 Undecided	38.6 %
59 Disagree	28.1 %
36 Strongly Disagree	17.1 %
21 Agree	10.0 %
7 Strongly Agree	3.3 %
6 No Response	2.9 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
68 Undecided (32.4 %)	13 Undecided (6.2 %)
32 Disagree (15.2 %)	25 Disagree (11.9 %)
12 Strongly Disagree (5.7 %)	24 Strongly Disagree (11.4 %)
15 Agree (7.1 %)	5 Agree (2.4 %)
2 Strongly Agree (1.0 %)	5 Strongly Agree (2.4 %)
3 No Response (1.4 %)	1 No Response (0.5 %)
2 Unspecified Residents Disagree (1.0 %)	
1 Unspecified Resident Agrees (0.5 %)	
2 Unspecified Residents No Response (1.0 %)	

Of Males and Females,

Males	Females
43 Undecided (20.5 %)	38 Undecided (18.1 %)
32 Disagree (15.2 %)	27 Disagree (12.9 %)
18 Strongly Disagree (8.6 %)	15 Strongly Disagree (7.1 %)
12 Agree (5.7 %)	9 Agree (4.3 %)
5 Strongly Agree (2.4 %)	2 Strongly Agree (1.0 %)
1 No Response (0.5 %)	3 No Response (1.4 %)
3 Unspecified Respondents Disagree (1.4 %)	
2 Unspecified Respondents No Response (1.0 %)	

f. The Penobscot Nation should do more to protect the Penobscot River.

In general,

88 Strongly Agree	41.9 %
68 Agreed	32.4 %
39 Undecided	18.6 %
6 No Response	2.9 %
5 Disagree	2.4 %
4 Strongly Disagree	1.9 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
43 Strongly Agreed (20.5 %)	44 Strongly Agreed (21.0 %)
46 Agreed (21.9 %)	21 Agreed (10.0 %)
36 Undecided (17.1 %)	2 Undecided (1.0 %)
3 Disagreed (1.4 %)	2 No response (1.0 %)
2 No Response (1.0 %)	2 Disagreed (1.0 %)
2 Strongly Disagreed (1.0 %)	2 Strongly Disagreed (1.0 %)

2 Unspecified Residents No response (1.0 %)
1 Unspecified Resident Strongly Agreed (0.5 %)
1 Unspecified Resident Agreed (0.5 %)
1 Unspecified Respondent Undecided (0.5 %)

Of Males and Females,

Males	Females
52 Strongly Agreed (24.8 %)	33 Strongly Agreed (15.7 %)
34 Agreed (16.2 %)	34 Agreed (16.2 %)
17 Undecided (8.1 %)	22 Undecided (10.5 %)
5 Disagreed (2.4 %)	3 No Response (1.4 %)
2 Strongly Disagreed (1.0 %)	2 Strongly Disagreed (1.0 %)
1 No Response (0.5 %)	

3 Unspecified Respondents Strongly Agreed (1.4 %)
2 Unspecified Respondents No Response (1.0 %)

- g. The Penobscot Nation would benefit if more was done by the Penobscot Nation to protect the Penobscot River.

In general,

83 Strongly Agreed	39.5 %
72 Agreed	34.3 %
39 Undecided	18.6 %
8 No Response	3.8 %
4 Disagreed	1.9 %
4 Strongly Disagreed	1.9 %

Of Reservation residents and Non-Residents,

Off Reservation	On Reservation
45 Strongly Agreed (21.4 %)	38 Strongly Agree (18.1 %)
48 Agreed (22.9 %)	23 Agree (11.0 %)
31 Undecided (14.8 %)	7 Undecided (3.3 %)
4 No Response (1.9 %)	2 No Response (1.0 %)
3 Disagreed (1.4 %)	3 Strongly Disagreed (1.4 %)
1 Strongly Disagreed (0.5 %)	
1 Unspecified Resident Agreed (0.5 %)	
1 Unspecified Resident Undecided (0.5 %)	
2 Unspecified Resident No Response (1.0 %)	
1 Unspecified Resident Disagreed (0.5 %)	

Of Males and Females,

Males	Females
49 Strongly Agreed (23.3 %)	31 Strongly Agreed (14.8 %)
39 Agreed (18.6 %)	33 Agreed (15.7 %)
15 Undecided (7.1 %)	24 Undecided (11.4 %)
3 Disagreed (1.4 %)	4 No Response (1.9 %)
3 Strongly Disagreed (1.4 %)	1 Disagreed (0.5 %)
2 No Response (1.0 %)	1 Strongly Disagreed (0.5 %)
3 Unspecified Respondents Strongly Agreed (1.4 %)	
2 Unspecified Respondents No Response (1.0 %)	

- h. The Penobscot Nation would benefit by working together with Maine State and Federal agencies to protect the Penobscot River.

In general,

119 Strongly Agree	56.7 %
72 Agree	34.3 %
12 Undecided	5.7 %
4 No Response	1.9 %
2 Strongly Disagree	1.0 %
1 Disagree	0.5 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
74 Strongly Agree (35.2 %)	44 Strongly Agree (21.0 %)
50 Agree (23.8 %)	20 Agree (9.5 %)
7 Undecided (3.3 %)	5 Undecided (2.4 %)
1 No Response (0.5 %)	2 Disagree Strongly (1.0 %)
	1 No Response (0.5 %)
	1 Disagree (0.5 %)
2 Unspecified Residents Agree (1.0 %)	
2 Unspecified Residents No Response (1.0 %)	
1 Unspecified Resident Strongly Agree (0.5 %)	

Of Males and Females,

Males	Females
71 Strongly Agree (33.8 %)	46 Strongly Agree (21.9 %)
34 Agree (16.2 %)	37 Agree (17.6 %)
4 Undecided (1.9 %)	8 Undecided (3.8 %)
1 Strongly Disagree (0.5 %)	2 No Response (1.0 %)
1 Disagree (0.5 %)	1 Strongly Disagree (0.5 %)
2 Unspecified Respondents Strongly Agree (1.0 %)	
1 Unspecified Respondents Agree (0.5 %)	
2 Unspecified Respondents No Response (1.0 %)	

- i. Some type of "river group" or committee could increase public awareness about the value of the Penobscot River.

In general,

83 Agree	39.5 %
78 Strongly Agree	37.1 %
31 Undecided	14.8 %
10 Disagree	4.8 %
5 Strongly Disagree	2.4 %
3 No Response	1.4 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
59 Agree (28.1 %)	24 Agree (11.4 %)
47 Strongly Agree (22.4 %)	29 Strongly Agree (13.8 %)
20 Undecided (9.5 %)	11 Undecided (5.2 %)
4 Disagree (1.9 %)	5 Disagree (2.4 %)
1 Strongly Disagree (0.5 %)	4 Strongly Disagree (1.9 %)
1 No Response (0.5 %)	
2 Unspecified Residents Strongly Agree (1.0 %)	
2 Unspecified Residents No Response (0.5 %)	
1 Unspecified Resident Disagree (0.5 %)	

Of Males and Females,

Males	Females
40 Agree (19.0 %)	41 Agree (19.5 %)
48 Strongly Agree (22.9 %)	29 Strongly Agree (13.8 %)
14 Undecided (6.7 %)	17 Undecided (8.1 %)
6 Disagree (2.9 %)	4 Disagree (1.9 %)
3 Strongly Disagree (1.4 %)	2 Strongly Disagree (1.0 %)
	1 No Response
2 Unspecified Respondents Agree (1.0 %)	
2 Unspecified Respondents No Response (1.0 %)	
1 Unspecified Respondent Strongly Agree (0.5 %)	

- j. Some type of "river group" or committee could help protect the Penobscot River.

In general,

93 Agree	44.3 %
66 Strongly Agree	31.4 %
32 Undecided	15.2 %
8 Strongly Disagree	3.8 %
7 Disagree	3.3 %
4 No Response	1.9 %

Of Reservation residents and non-residents,

Off reservation	On reservation
64 Agree (30.5 %)	29 Agree (13.8 %)
42 Strongly agree (20.0 %)	22 Agree strongly (10.5 %)
19 Undecided (9.0 %)	12 Undecided (5.7 %)
3 Disagree strongly (1.4 %)	5 Disagree strongly (2.4 %)
3 Disagree (1.4 %)	4 Disagree (1.9 %)
1 No response (0.5 %)	1 No response (0.5 %)
2 Unspecified residents agree (1.0 %)	
1 Unspecified resident undecided (0.5 %)	
2 Unspecified residents no response (1.0 %)	

Of Males and Females,

Males	Females
44 Agree (21.0 %)	49 Agree (23.3 %)
43 Strongly Agree (20.5 %)	22 Strongly Agree (10.5 %)
16 Undecided (7.6 %)	15 Undecided (7.1 %)
4 Strongly Disagree (1.9 %)	3 Strongly Disagree (1.4 %)
3 Disagree (1.4 %)	4 Disagree (1.9 %)
1 No Response (0.5 %)	1 No Response (0.5 %)
2 Unspecified Respondents No Response (1.0 %)	
1 Unspecified Respondent Undecided (0.5 %)	
1 Unspecified Respondent Strongly Disagree ((.5 %)	
1 Unspecified Respondent Strongly Agree (0.5 %)	

- k. I would be willing to get involved with a "river group" or committee in some way.

In general,

82 Undecided	39 %
42 Agree	20 %
38 Strongly Agree	18.1 %
33 Disagree	15.7 %
10 Strongly Disagree	4.8 %
5 No Response	2.4 %

Of Reservation Residents and Non-Residents,

Off Reservation	On Reservation
62 Undecided (29.5 %)	18 Undecided (8.6 %)
23 Agree (11.0 %)	19 Agree (9.0 %)
16 Strongly Agree (7.6 %)	21 Strongly Agree (10.0 %)
22 Disagree (10.5 %)	11 Disagree (5.2 %)
6 Strongly Disagree (2.9 %)	4 Strongly Disagree (1.9 %)
2 Unspecified Residents Undecided (1.0 %)	
2 Unspecified Residents No Response (1.0 %)	
1 Unspecified Resident Strongly Agrees (0.5 %)	

Of Males and Females,

Males	Females
40 Undecided (19.0 %)	41 Undecided (19.5 %)
24 Agree (11.4 %)	16 Agree (7.6 %)
26 Strongly Agree ((12.4 %)	12 Strongly Agree (5.7 %)
14 Disagree (6.7 %)	19 Disagree (9.0 %)
7 Strongly Disagree (3.3 %)	3 Disagree Strongly (1.4 %)
	3 No Response (1.4 %)
2 Unspecified Respondents Agree (1.0 %)	
2 Unspecified Respondents No Response (1.0 %)	
1 Unspecified Respondent Undecided (0.5 %)	

2. How important to you are the following issues to the overall quality of the Penobscot River ? (circle one for each issue)

4=very important, 3=important, 2=slightly important,
1=not important, DK=don't know

* discharge of industrial pollutants

185 Very Important	88.1 %
16 Important	7.6 %
5 Don't Know	2.4 %
4 No Response	1.9 %

* untreated or poorly treated sewage

184 Very Important	87.6 %
16 Important	7.6 %
6 Don't Know	2.9 %
3 No Response	1.4 %
1 Not Important	0.5 %

* chemical spills

185 Very Important	88.1 %
13 Important	7.6 %
7 Don't Know	3.3 %
3 No Response	1.4 %
2 Slightly Important	0.5 %

* oil spills

176 Very Important	83.8 %
14 Important	6.7 %
10 Don't Know	4.8 %
6 Slightly Important	2.9 %
3 No Response	1.4 %
1 Not Important	0.5 %

* excessive changes in flow or water level
due to hydroelectric projects

90 Very Important	42.9 %
61 Important	29.0 %
25 Don't Know	11.9 %
23 Slightly Important	11.0 %
6 Not Important	2.9 %
5 No Response	2.4 %

* street run-off (road oil, litter, etc.)

109	Very Important	51.9 %
60	Important	28.6 %
21	Slightly Important	10.0 %
11	Don't Know	5.2 %
5	Not Important	2.4 %
4	No Response	1.9 %

* overflow from storm drains

75	Very Important	35.7 %
69	Important	32.9 %
27	Slightly Important	12.9 %
21	Don't Know	10.0 %
13	Not Important	6.2 %
5	No Response	2.4 %

* agricultural pesticides/fertilizer run-off

149	Very Important	71 %
35	Important	16.7 %
13	Don't Know	6.2 %
7	Slightly Important	3.3 %
4	No Response	1.9 %
2	Not Important	1.0 %

* careless or excessive development

125	Very Important	59.5 %
52	Important	24.8 %
17	Don't Know	8.1 %
9	Slightly Important	4.3 %
4	No Response	1.9 %
3	Not Important	1.4 %

* untreated or poorly treated industrial waste

180	Very Important	85.7 %
15	Important	7.1 %
11	Don't Know	5.2 %
4	No Response	1.9 %

3. If we held a "river group" or committee workshop/meeting, what topics would you be interested learning more about ? (check as many as you wish)

- 124 Interested in Hydroelectric development
- 175 Interested in Environmental impacts from the paper industry
- 127 Interested in Atlantic salmon restoration
- 118 Interested in Impacts from increased river use
- 119 Interested in Other water quality issues such as :

- Adverse Impacts to Wildlife
- Pollution Clean-up
- Aquaculture
- Development on other Reservation Islands
- More Feasible Access to River
- Abuse of Hunting/Fishing Privileges
- Results of Current Water Quality Program
- Clean up of Past Logging Efforts
- Access to Islands Upriver
- Enforcement of Shoreland Zoning
- Greenbush Nuclear Waste Site
- The Fining of Paper Companies
- What Tribal Members can do to help
- Water Rights
- History of the river
- Impacts to Aquatic Life
- Investing in the Education of Tribal Members in Water Management

4. If we were to have a meeting/workshop, what would be the best time and day for you ? (circle day and time of preference)

Weekday	Weekend	Daytime	Evening
Day		Time	
90 No Response (42.9 %)		114 Evening	(54.3 %)
66 Weekend (31.4 %)		59 No Response	(28.1 %)
54 Weekday (25.7 %)		37 Daytime	(17.6 %)

5. Overall, do you think the quality of the Penobscot is:
(choose one)

119	Could be improved	56.7 %
42	Better the before	20.0 %
18	Don't know	8.6 %
17	Worse than before	8.1 %
8	About the same	3.8 %
6	No response	2.9 %

SECTION C. In this last section we would like to ask some questions about your background that will help us compare answers among people who answer this survey. All of this information will be kept **STRICTLY CONFIDENTIAL**.

1. Please tell us your:

Sex	111 Male	52.9 %
	94 Female	44.8 %
	5 No response	2.4 %

Age		
65	(25-34)	31 %
43	(35-44)	20.5 %
25	(45-54)	11.9 %
23	(18-24)	11.0 %
23	(55-64)	11.0 %
12	(65-74)	5.7 %
10	Under 18	5.0 %
5	75 or older	2.4 %
4	No Response	2.0 %

2. Do you live:

73	On Indian Island	34.8 %
132	Off Indian Island - how far away?	

31	1-9 miles away	14.8 %
31	10-29 miles away	14.8 %
20	50-99 miles away	9.5 %
14	greater than 200 miles away	6.7 %
14	100-149 miles away	6.7 %
13	150-199 miles away	6.2 %
9	30-49 miles away	4.3 %

3. How many people live in your household ?

Adults (18 and older)	# Male	_____	# Female	_____
Children	# Male	_____	# Female	_____

4. What was your family income in 1989, before taxes ?
(check one)

50	\$ 10,001 - 20,000	23.8 %
45	\$ 10,000 or less	21.4 %
39	\$ 20,001 - 30,000	18.6 %
28	No Response	13.3 %
26	\$ 30,001 - 40,000	12.4 %
11	\$ 40,001 - 50,000	5.2 %
11	over \$ 50,000	5.2 %

5. What is your highest level of formal education you have attained?

77	High school graduate	36.6 %
30	College Graduate	14.3 %
25	Some high school	11.9 %
23	Vocational or Technical school graduate	11.0 %
20	No Response	9.5 %
16	8th grade	7.6 %
16	Graduate or other advanced study	7.6 %
3	Less than 8th grade	1.4 %